Form PTO-1449

U.S. Department of Commerce Patent and Trademark Office

Attorney's Docket No. 02052-079004

Application No. 10/637,620

Information Disclosure Statement by Applicant
(Use several sheets if necessary)

(37 CFR §1.98(b))

Applicant Manus P. Henry et al.

Filing Date

Group Art Unit August 11, 2003

1732 7,857

U.S. Patent Documents							
Examiner	Desig.	Document	Publication				Filing Date
Initial	ID_	Number	Date	Patentee	Class	Subclass	If Appropriate
mlb	AA	Re 29,383	09/00/77	Gallatin et al.	137	14	
m(b	AB	Re 31,450	11/29/83	Smith	73	861.356	
nlb	AC	3,956,682	05/11/76	Van Dyck	318	640	
mlb	AD	4,419,898	12/13/83	Zanker et al.	73		
Mb	AE '	4,422,338	12/27/83	Smith	73	861,356	
mb	AF	4,491,025	01/01/85	Smith et al.	73	861.355	
mlb	AG	4,688,418	08/25/87	Cheung et al.	73	29,01	
mlb	AH	4,727,746	03/01/88	Mikasa et al.	73	23.31	
din	AI	4,757,390	07/12/88	Mehrgardt et al.	386		
mlb	AJ	4,773,257	09/27/88	Aslesen et al.	73	61,44	
mlb	AK	4,782,711	11/08/88	Pratt 1	33-31	65861	1357
m/6	AL	4,801,897	01/31/89	Flecken	331	65	
mb	AM	4,817,448	04/04/89	Hargarten et al.	.73	861.356	
mb	AN	4,823,614	04/25/89	Dahlin	73	861.357	
m/b	AO	4,852,410	08/01/89	Corwon et al.	73	861.355	
mb	AP	4,879,911	11/00/89	Zolock	73	861.356	
mlb	AQ	4,891,991	01/00/90	Mattar et al.	73	861.357	
mlb	AR	4,895,030	01/23/90	Bergamini et al.	73	861.355	-
m/b	AS	4,911,006	03/00/90	Hargarten et al.	73	198	
mlb	AT	4,911,020	03/00/90	Thompson	73	8 U. 356	
mlb	AU	4,934,195	06/00/90	Hussain	73	861.353	
m/b	AV	4,934,196	06/19/90	Romano	73	261.356	
mlb	AW	4,996,871	03/00/91	Romano	73	32A	
m/6	AX	5,027,662	07/00/91	Titlow et al.	73	861,356	
mb	AY	5,029,482	07/09/91	Liu et al.	13	261,04	
mlb	AZ	5,050,439	09/00/91	Thompson	73	861.356	,
m/b	BA	5,052,231	10/01/91	Christ et al.	73	861-352	

Examiner Stanature M 2 M 2 M 2 M 2 M 2 M 2 M 2 M 2 M 2 M	Date Considered 4/5/05
EXAMINER: Initials citation considered. Draw line through citation if no	ot in conformance and not considered. Include copy of this form with
next communication to applicant	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 02052-079004	Application No. 10/637,620	
	closure Statemenť oplicant	Applicant Manus P. Henry et al.		
(Use several sh	neets if necessary)	Filing Date August 11, 2003	Group Art Unit 1732 7-8 5 7	

U.S. Patent Documents							
Examiner	Desig. ID	Document Number	Publication	Patentee	Class	Cubalana	Filing Date
Initial			Date		Class	Subclass	If Appropriate
1,1	BB	5,054,326	10/08/91	Mattar		861.355	
m 15	ВС	5,218,869	06/15/93	Pummer	73	629	
dlm	BD	5,228,327	07/20/93	Bruck	73	1,34	
- m/b	BE	5,259,250	11/09/93	Kolpak	13	861.355	
m15	BF	5,271,281	12/00/93	Mattar et al.	73	861. 355	
dla	BG	5,343,764	09/00/94	Matter et al.	93	B61.359	
all	вн	5,347,874	09/20/94	Kalotay et al.	73	861.357	
m/6	BI	5,400,653	03/28/95	Kalotay et al.	73	861.353	
· m/b	BJ	5,429,002	07/04/95	Coleman	73	861.356	
طاس	BK	5,469,748	11/28/95	Kalotay	13	861356	
mlb	BL	5,497,665	03/00/96	Cage et al.	73	861.35%	
mlb	ВМ	5,497,666	03/12/96	Patten et al.	73	861,355	
mlb	BN	5,535,632	07/16/96	Kolpak	73	861.04	
mlb	ВО	5,555,190	09/00/96	Derby et al.	702	45	
m/b	BP	5,570,300	10/00/96	Henry et al.	702	45	
vi 16	BQ	5,578,764	11/26/96	Yokoi et al.	13	861.356	
mb	BR	5,594,180	01/00/97	Carpenter et al.	73	861.356	
mlb	BS	5,648,616	07/15/97	Keel	73	861.350	7
mlb	ВТ	5,654,502	08/05/97	Dutton	73	152, 18	
mlb	BU	5,687,100	11/11/97	Buttler et al.	702	137	
m/b	BV	5,774,378	06/00/98	Yang	702	104	
mlb	BW	5,804,741	09/08/98	Freeman	13	861.356	
mb	BX	5,926,096	07/20/99	Mattar et al.	340	606	
mlb	BY	5,969,264	10/19/99	Rivkin	73	261.35	,
mlb	BZ	6,073,495	06/13/00	Stadler	73	861.35	
MÍb	CA	6,092,429	07/25/00	Cunningham et al.	23	861,336	
mlb	СВ	6,311,136	10/30/01	Henry et al.	702	45	

Examiner Signature	Date Considered 4 /5/0 5
EXAMMER: Initials citation considered. Draw line through citation if no next communication to applicant.	it in conformance and not considered. Include copy of this form with

Substitute Disclosure Form (PTO-1449)

Substitute Form PTO-1449	U.S. Department of Commerce	Attorney's Docket No.	Application No.	
(Modified)	Patent and Trademark Office	02052-079004	10/637,620	
by Ap	closure Statement oplicant	Applicant Manus P. Henry et al.		
(Use several sheets if necessary) (37 CFR §1.98(b))		Filing Date August 11, 2003	Group Art Unit 1732 2 8 5 7	

	U.S. Patent Documents						
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
m15	СС	6,318,156	11/20/01	Dutton et al.	73	61,44	
m 16	CD	6,327,914	12/11/01	Dutton	73	861.356	
mlb	CE	6,505,519	01/14/03	Henry et al.	73	861,33	
m (6)	CF	6,564,619	05/20/03	Dutton et al.	73	61,44	

	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig.	Document	Publication	Country or	0		Transla	
Initial	<u>ID</u>	Number	Date	Patent Office	Class	Subclass	Yes	No
mlb	CG	EP 0 698 783 A1	28 FEB 1996	EUROPE			ABS	
mlb	CH	EP 0 702 212 A2	20 MAR 1996	EUROPE			English	
mila	CI	EP 0696726A	14 FEB 1996	EPO				1
mlk	CJ	EP 0827096	04 MAR 1998	EUROPE				
MIM	CK	WO 00/10059	24 FEB 2000	WIPO				
Nb	CL	WO 93/21505	28 OCT 1993	PCT	_			

, (Other Documents (include Author, Title, Date, and Place of Publication)			
Examiner	Desig.			
Initial	I ID	Document		
mlb	СМ	A.F. Skea, "Effects of Gas Leaks in Oil Flow on Single-Phase Flowmeters", Flow Measurement and Instrumentation, Vol. 10, pp 146-150 (1999)		
mlb	CN	David Spitzer; "Mass Flowmeters"; Industries Flow Measurement, Chapter 12; pp. 197-210; 1990		
nib.	со	E. Luntta et al., "Neural Network Approach to Ultrasonic Flow Measurements", Flow Measurement and Instrumentation, Vol. 10, pp 35-43, 1999		
m.10.	СР	J. Hemp et al.; "On the Theory and Performance of Coriolis Mass Flowmeters"; Proceedings of the International Conference on Mass Flow Measurement Direct and Indirect; IBC Technical Services; 40 pages; February 1989		
nlb	CQ	J. Reimann, "Developments in Tow-Phase Mass Flow Rate Instrumentation", pp 339-402		
mlb	CR	J.T. Grumski et al., "Performance of a Coriolis-type Mass Flow Meter in the Measurement of Two-phase (air-liquid) Mixtures", ASME Fluid Engineering Division Publication FED, Vol. 17, pp 75-84, 1984		
11/6	CS	Joseph DeCarlo; "True Mass-Flow Measurement"; Fundamentals of Flow Measurement, Unit 11-2; pp. 208-220; 1984		
ulp	СT	M. Henry et al., "The Implications of Digital Communications on Sensor Validation", Report No. QUEL 1912/92, University of Oxford, Department of Engineering Science, April 1992		
m/6	CU	M.P. Henry et al., "A New Approach to Sensor Validation", Improving Analyser Performance, IMC, March 17, 1992		
Examiner Sign	M	The Date Considered / 4/5/05		
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.				

Substitute Disclosure Form (PTO-1449)

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 02052-079004	Application No. 10/637,620	
by A	closure Statement pplicant	Applicant Manus P. Henry et al.		
(Use several s (37 CFR §1.98(b))	heets if necessary)	Filing Date August 11, 2003	Group Art Unit 1732 2 8 5 7	

	Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner Initial	Desig. ID	Document			
mb	CV	M.P. Henry et al., "A Self-Validating Digital Coriolis Mass-flow Meter" (1); overview, 1999			
mlb	CW	M.P. Henry et al., "A standard Interface for Self-Validating Sensors", Report No. QUEL 1884/91, University of Oxford, Department of Engineering Science, Sept. 1991			
mlp	CX	M.P. Henry et al., "Signal processing, Data Handling and Communications: The Case for Measurement Validation", March 1992			
m16	CY	M.P. Henry et al., "The Self-Validating Sensor: Rationale Definitions and Examples", Control Engineering Practice, 1 (4), pp 585-610, 1993			
m 16	CZ	M.P. Henry, "Intelligent Behaviour For Self-Validating Sensors", Advances in Measurement, pp 1-7 date unknown			
mlb	DA	M.P. Henry, "Self-Validation Improves Coriolis Meter", Control Engineering, 42 (6), pp 81-86 (1995)			
mlb	DB	M.P. Henry, "Sensor Validation and Fieldbus", IEE Computing and Control Engineering Journal, 6 (6), pp 263-269			
mlb	DC	R.P. Liu et al., "A Neural Network to Correct Mass Flow Errors Caused by Two Phase Flow in a Digital Coriolis Mass Flow Meter". Engineering Science Department, Oxford University			
	DD				

Examiner Signature	Date Considered
EVALUATE A WAR TO THE TANK THE	
EXAMINER: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include copy of this form with